

D3290-1

Work Order ID 116799

B116799

116799

Page 1

May-09-14 8:25:56 AM

Item ID: D3290-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Frame

Start Date: 4/23/14

Start Qty: 16.00

16

Cust Item ID:

Required Date: 4/23/14

Req'd Qty: 16.00

16

Customer:

Reference:

Approvals:

Process Plan: MLJDate: 14-05-09 Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3290

Rev C

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3290 (use prog. for D3290-1)

Dwg Rev: CProg Rev: C

2-Deburr if necessary

16 0 Jm14-05-15

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

16 0 Jm14-05-15

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

DAS

27

9-89

14/5/15

16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
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| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | |
|--|--|---|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other |
|--|--|---|--|

Work Order ID 116799

116799

Page 2

May-09-14 8:25:56 AM

Item ID: D3290-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Frame
 Start Date: 4/23/14 Start Qty: 16.00 ***16*** Cust Item ID:
 Required Date: 4/23/14 Req'd Qty: 16.00 ***16*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130 | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | | | | |
| *130* | | | | | | | | | |
| Hand Finish | Memo | 0.00 | | | | | | | |
| Hand Finishing | | | | | | | | | |
| 135 | QC7-Inspect Chemical Conversion Coat | 0.00 | | | | | | | |
| *135* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 140 | White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum | 0.00 | | | | | | | |
| *140* | | | | | | | | | |
| Powdercoat | Memo | 0.00 | | | | | | | |
| Powder Coating | START TIME: 1:05 OVEN TEMPERATURE: 320 FINISH TIME: 1:35 | | | | | | | | |

16 14-5-21

16 14-5-22

DAS 34 9-89

16 14-5-22

DAS 34 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
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| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

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Work Order ID 116799

May-09-14 8:25:56 AM

116799

Page 3

Item ID: D3290-1 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Frame
 Start Date: 4/23/14 Start Qty: 16.00 *16* Cust Item ID:
 Required Date: 4/23/14 Req'd Qty: 16.00 *16* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | DAS 27 9-89 | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|-------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|-------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| | | | | | | | | | | |
|-----------------|--------------------------|------|---------|--|--|--|----|--|--|--|
| 150 | QC3- Inspect Part Finish | 0.00 | | | | | 16 | | | |
| *150* | | | | | | | | | | |
| QC | Memo | 0.00 | 14/5/22 | | | | | | | |
| Quality Control | | | | | | | | | | |

| | | | | | | | | | | |
|-----------|--|------|--|--|--|--|-----|--|---------|--|
| 180 | Identify as per dwg & Stock Location: 8218 | 0.00 | | | | | 16x | | 14-5-23 | |
| *180* | | | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | | |
| Packaging | | | | | | | | | | |

DAS
26
9-89

| | | | | | | | | | | |
|-----------------|---|------|--|--|--|--|-----|--|---------|--|
| 190 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | MLJ | | 14-5-26 | |
| *190* | | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | | |
| Quality Control | | | | | | | | | | |

MLF
14-5-23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | | | | | | | | | | | | | |
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| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

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|--|--|---|---|

Picklist Print

May-09-14 8:25:59 AM

Page 1

Work Order ID: 116799

116799

Parent Item: D3290-1

D3290-1

Parent Item Name: Frame

Start Date: 4/23/14

Required Date: 4/23/14

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP REV:A 12.06.13 NEW ISSUE DD VERF:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

M6061T6S.063

Purchased

No

100

sf

617.6380

3.75

64

M6061T6S 063

**

Jul 14-05-15

6061-T6 .063 Sheet

Location

Loc Qty

Loc Code

MAT021

617.638

M124446

9

M126075

4.5

M127006

9

M127420

117.12

M128054

171.018

M128941

307

128054.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | |
|--|--|---|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other |
|--|--|---|--|

FWD
INBOARD

D2126-0780 LOCKING SEAL
(TRIM TO FIT)
D3290-1 WINDOW FRAME
D3290-3 WINDOW

1.10 (TYP)
DIST. FROM FRAME
EDGE TO WINDOW

D2126-0780 LOCKING SEAL
(REF)

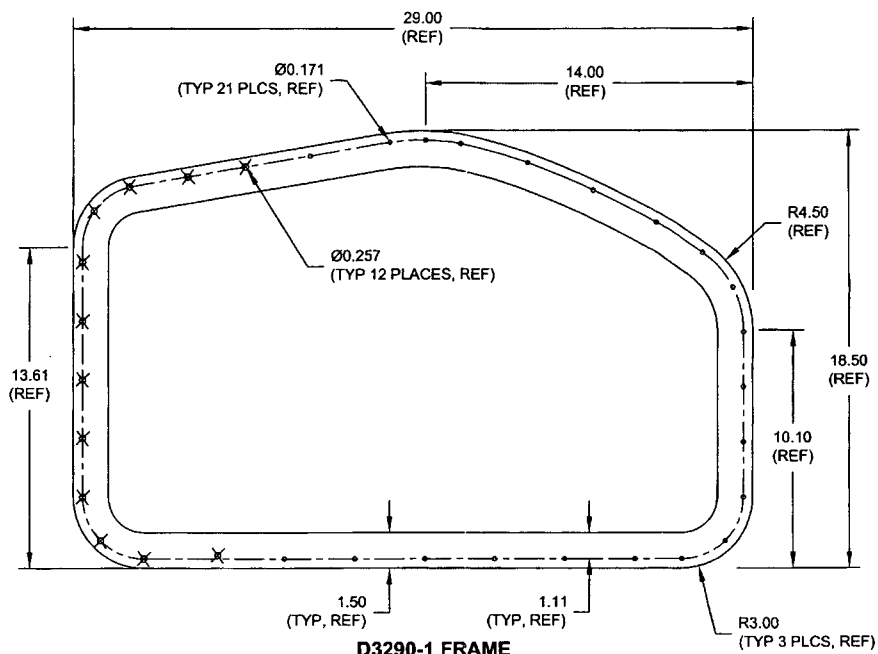
ENSURE D3290-3 WINDOW IS INSTALLED
ON CORRECT SIDE OF D3290-1 WINDOW FRAME

SECTION A-A
NTS

D3290-041 REPLACEMENT WINDOW ASSEMBLY

D3290-041 NOTES:
1) WEIGHT: 3.66 LBS

GENERAL NOTES:
1) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
2) UNITS: INCHES UNLESS OTHERWISE NOTED



D3290-1 FRAME

D3290-1 NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
(REF. DART SPEC. M6061T6S.040)
OR
5052-H32 ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/8 OR AMS 4016
(REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT WHITE (REF. 4.5.3.1) PER DART QSI 005 4.3
- 3) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 4) IDENTIFICATION: IDENTIFY WITH DART P/N "D3290-1" USING FINE POINT PERMANENT INK MARKER
- 5) WEIGHT: 0.47 LBS

RELEASED
07.07.24

DEO ATTACHED

| C | UPDATE DIMS PER PAR 188 | DC | 07.07.24 |
|------------|-----------------------------|----|----------|
| B | UPDATE MATERIAL PER NCR 029 | MB | 06.04.20 |
| A | NEW ISSUE | RF | 04.06.14 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 07.07.24 | | |

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. REV. C
D3290 SHEET 1 OF 2
TITLE SCALE
REPLACEMENT WINDOW ASSEMBLY 1:5

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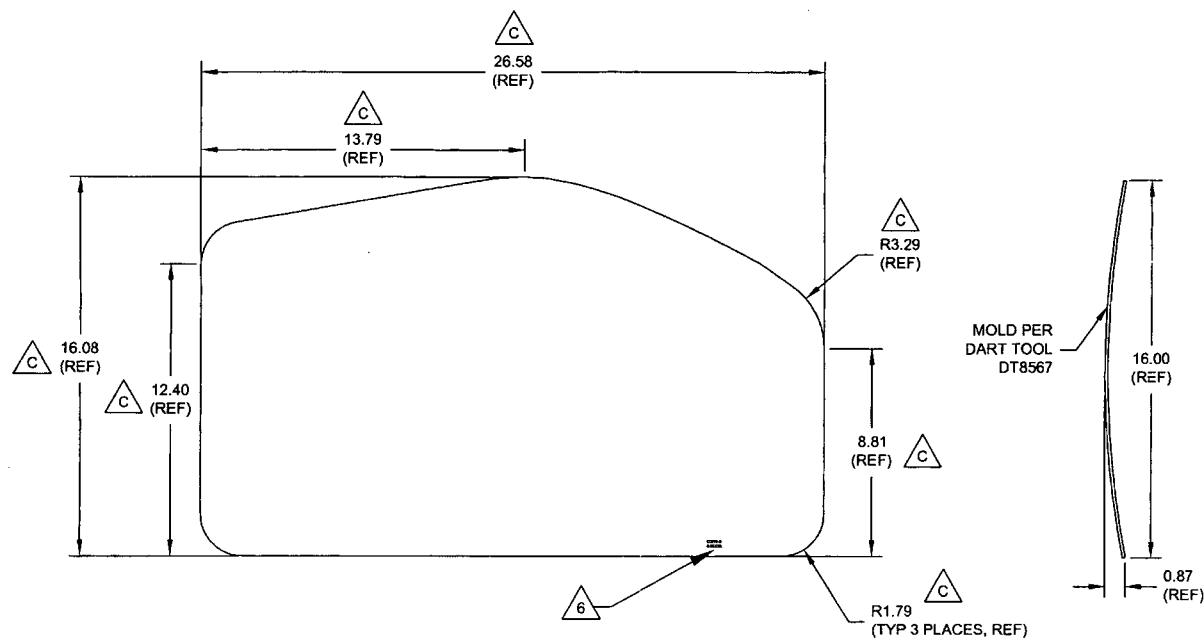
MCS

140425

UNDER REVIEW

07.07.24
MIR 07-057

09/10/19



D3290-3 WINDOW

D3290-3 NOTES:

- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425
OR PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER
LP-391 TYPE 1 GRADE C, 0.125 THICK
(REF. DART SPEC. M-ACRYLIC-S.125)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) REMOVE SHARP EDGES
- 6) IDENTIFICATION: ENGRAVE P/N "D3290-3" AND B/N ON LOWER EDGE
USE 0.125" HIGH LETTERS TO MAXIMUM DEPTH OF 0.005"
- 7) WEIGHT: 1.87 +/- 0.42 LBS
- 8) MOLD PER DART TOOL DT8567

| | | | |
|------------|----------|---|--------------|
| DESIGN | | DART AEROSPACE LTD | |
| DRAWN | | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | | DRAWING NO. | REV. C |
| MFG. APPR. | | D3290 | SHEET 2 OF 2 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | REPLACEMENT WINDOW ASSEMBLY | 1:5 |
| DATE | 07.07.24 | <small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUBMITTED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> | |

UNDER REVIEW

**DEO ATTACHED
RELEASED**

| | | | | | | | |
|----------------------|--------------------------------------|------------------------|---|--|-------------------------|---------------------------|--------------|
| DRAWING NO. D3290 | TITLE REPLACEMENT WINDOW ASSEMBLY | REV. C | DART AEROSPACE LTD ENGINEERING ORDER | | D.E.O. NO. D3290-C-1 | SHEET NO. SHEET 1 OF 1 | SCALE NTS |
| DRAWN <i>Q</i> | CHECKED <i>h</i> | MFG. APPR. <i>E</i> | APPROVED <i>MP</i> | | DE APPR. <i>h</i> | | |
| DATE 09.09.18 | DATE 09.09.18 | DATE 09.09.18 | DATE 09/09/21 | | DATE 09/09/21 | | |

PURPOSE:

CHANGE MATERIAL THICKNESS OF D3290-1 FRAME TO 0.063 FROM 0.040. REF PAR 09-033.

CHANGE:

MATERIAL CALL-OUT OF D3290-1 FRAME ON SHEET 1 IS AMENDED AS FOLLOWS:

D3290-1 NOTES

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
 PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
~~(REF. DART SPEC. M6061T6S.040)~~ REF. DART SPEC. M6061T6S.063 (REPLACE)
 OR
 5052-H32 ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
 PER AMS-QQ-A-250/8 OR AMS 4016
~~(REF. DART SPEC. M5052H32S.040)~~ REF. DART SPEC. M5052H32S.063 (REPLACE)

RELEASED
 2009-10-09
WTP